precluded by a normal neurological examination, the only diagnosis remaining is constitutional precocious puberty.

The treatment of this disease is less than satisfactory. There is no agent available that prevents the premature closure of the distal epiphyses. Medroxyprogesterone acetate inhibits ovulation, usually prevents menstruation and may cause some regression of the secondary sex characteristics.

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Ectopic Pregnancy: Current Etiology

THE NUMBER OF MATERNAL DEATHS due to ectopic pregnancies has decreased in the last 20 years, but there has been a far greater decline in maternal deaths from abortions. As a result, ectopic pregnancy is the leading cause of maternal mortality in the first trimester of pregnancy. Reviews indicate that a significant percentage of these deaths are preventable. A half to two thirds of all women with surgically proved ectopic pregnancies are seen in a medical facility more than 24 hours before admission for surgical operation.

Pelvic inflammatory disease and pelvic surgical procedures have long been suggested as etiologic factors in ectopic pregnancy. More recently it has been noted that pregnancies following tubal surgical procedures for infertility or tubal sterilization operations, and unwanted pregnancies which occur while women are using intrauterine devices (IUD's) or progesterone-only oral contraceptives are more likely to be ectopic. Conservative infertility operations to restore tubal patency result in an increased proportion of tubal pregnancies particularly with surgical procedures involving the distal portion of the tube. Ectopic pregnancy has been reported following both tubal ligation and tubal fulguration sterilization procedures. A previous history of tubal occlusion for sterilization does not exclude the possibility of ectopic gestation, and as these procedures are more frequently selected by family planning acceptors they will play an increasing role in the cause of ectopic pregnancy. Users of intrauterine devices have protection against both intrauterine pregnancies, and tubal pregnancies but the IUD is more effective in preventing intrauterine pregnancies than extrauterine gestations. Therefore, an unwanted pregnancy in an IUD user is more likely to be an ectopic gestation than is a pregnancy in women using barrier methods of contraception or no method of contraception at all. Progesterone-only oral contraceptives are associated with a 2 percent to 8 percent failure rate and the ratio of extrauterine to intrauterine gestations is increased compared with a population of noncontraceptive users.

A past history of pelvic operation either to restore tubal patency or to produce tuba occlusion and a contraceptive history indicating the present use of an IUD or the progesterone-only oral contraceptives increase the likelihood that a pregnancy will be an extrauterine gestation.

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Ambulatory Gynecologic Operations

AMBULATORY OPERATIONS, meaning any surgical procedure done without an overnight hospital stay, are now firmly established as a safe, economical and reimbursable mode of surgical practice. It is estimated that from 30 percent to 40 percent of gynecological operations that have traditionally been carried out with admission to hospital could now be done in suitable *come-and-go* facilities, with excellent care, and with significant savings in physician time and patient costs.

Suitable facilities for ambulatory gynecologic surgical operations are of three basic types: The hospital *come-and-go,* the freestanding surgical center and the office-based surgical suite. The hospital based *come-and-go* surgery has the advantage of immediate hospital backup in case of unanticipated need; established standards are easier to monitor but savings tend to be less. Freestanding surgical centers generally maintain high quality standards of care, general anesthesia capability and overall costs which are lower than hospital-based centers. The office-based surgical suite has the greatest potential for cost effectiveness, but also the furthest to go in establishing and monitoring quality standards of care. In general, operations that can be carried out with local anesthesia, such as dilation and curettage, are appropriate for an office-based surgical suite. Operations for which general anesthesia is preferred, such as laparoscopy and minilapa-

rotomy, are most commonly done in a hospital-based or a freestanding facility.

More ambulatory surgical facilities should be developed and used, whenever appropriate, for other surgical specialties as well as gynecology. When this trend toward most cost-effective surgical care reaches its full potential, it will have a major impact in lowering the overall cost of surgical health care, while preserving its high quality.

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The Use of β-Sympathomimetic Drugs for the Inhibition of Premature Labor

ALMOST ALL ORGANS including the uterus have α and β receptors. Stimulation of α receptors causes excitation, while stimulation of the β receptors causes relaxation. The β receptors have been subdivided into β_1 and β_2 receptors: The former are confined to the heart, while the latter are present in the vascular smooth muscle, myometium and bronchial tree.

Stimulation of β-adrenergic receptors has in recent years become the preferred method to inhibit uterine contractions in premature labor. Pharmacologic agents such as isoxsuprine, ritodrine and terbutaline have been employed clinically and with better success rates than achieved with use of alcohol or sedation.

The maternal cardiovascular side effects of β-sympathomimetic drugs include maternal tachycardia, palpitations, increased cardiac output and hypotension. These side effects vary from one agent to another depending on the degree of β_1 receptor stimulation. Whereas, isoxsuprine stimulates the β_1 and β_2 receptors, the other agents have β_2 selectivity. The maternal metabolic side effects are primarily due to muscle glycogenolysis and lipolysis, and include hyperglycemia, lacticidemia, hyperlipemia, hyperkalemia and increased oxygen consumption. Acid-base balance changes indicate acute metabolic acidosis. Compensatory mechanisms come into force after one to six hours of β-sympathomimetic infusions and the above metabolic changes return toward control levels. β-Sympathomimetic drugs cross the placenta and reach the fetus. There is an increase in fetal heart rate and serum glucose, but no change in the mean arterial pressure and acid-base balance when labor-inhibiting doses are used.

Baumgarten suggested the following treatment plan: immediate bed rest, sedation if the patient is very anxious and intravenous infusion of β-sympathomimetic drugs. A low dose schedule is initiated, and the infusion rate is increased every 15 minutes until uterine contractions stop. The labor-blocking dose is maintained for 24 hours, then gradually diminished to the minimum effective dose, which is maintained for another 24 hours. If effective, the intravenous infusion is stopped in 48 hours. Oral administration of the β-sympathomimetics is started in the hospital and continued at home until fetal maturity. The prophylactic use of β-sympathomimetics in patients at risk of premature labor has not been proved.

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Hysteroscopy

MOST HYSTEROSCOPIES may be carried out on an outpatient basis utilizing intravenous meperidine sedation and paracervical block anesthesia. The hysteroscopy should be scheduled in the early follicular phase. Hyskon Hysteroscopy Fluid, a 32 percent solution of dextran with an average molecular weight of 70,000, is not miscible with blood and therefore is the medium of choice.

Hysteroscopy is indicated in patients who have recurrent abnormal uterine bleeding. More than a third of these patients have a submucous myoma or endometrial polyp (or polyps) which may be missed even by the most thorough curettage. These may be resected or removed during hysteroscopy.

Hysteroscopy is indicated in women in whom an intrauterine device (IUD) is palpable within the cavity but cannot be removed and for those in whom the device cannot be felt but is shown (for example, by hysterosalpingogram) to be partially within the uterus.

The major application is in the diagnosis and treatment of intrauterine adhesions. Under direct visualization, the extent, density and location of the adhesions may be determined. Lysis of adhesions under direct vision is easy and safe, complete dissection is assured and normal endometrium is not traumatized. Following dissection of the adhesions, an IUD is placed and high dose estrogen therapy is used for two months.

Because endometrial carcinoma is considered both an indication (for accurate staging) and a